Transportation Demand Management

Recommendations and Guidelines

A Resilient Communities Project–GreenStep Cities Guide

Resilient Communities Project
University of Minnesota
Driven to Discover℠

This report was produced by the Resilient Communities Project (RCP), a program at the University of Minnesota whose mission is to connect communities in Minnesota with U of MN faculty and students to advance local sustainability and resilience through collaborative, course-based projects. RCP is a program of the Center for Urban and Regional Affairs (CURA). More information at http://rcp.umn.edu. Funding for the report was provided by GreenStep Cities, a program of the Minnesota Pollution Control Agency, through a grant from the McKnight Foundation. More information at https://greenstep.pca.state.mn.us.

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Transportation Demand Management Policy Study

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INTRODUCTION

Transportation Demand Management (TDM) is a process of developing a plan to maximize transportation system efficiency. Different strategies are used to reduce dependency on single-occupancy vehicles (SOV), including transit, biking, walking, and carpooling.[1] In addition to encouraging the use of alternative forms of transportation, successful TDM plans work to use infrastructure more efficiently by redistributing concentrated rush hour travel demand throughout the day.[2] TDM strategies may be mandatory, for example several of the development stage recommendations given here, or voluntary. Voluntary TDM strategies include incentives for employees to carpool or take public transit to work. Both strategies seek to reduce the number of SOVs on the road.

There are numerous economic, environmental, and health benefits associated with TDM. Fewer SOVs using major thoroughfares reduces the need to expand roadways, an expensive capital investment.[3] Additionally, the reduced need for parking allows cities to convert lesser-used parking facilities into economically beneficial developments in dense downtown areas.

Air pollution can be reduced through emission reduction from fewer vehicles making fewer trips. This not only has positive environmental consequences, but health benefits as well. Prevalence of respiratory illness may be reduced through decreased air pollution. In addition to improved air quality, many TDM strategies encourage use of active forms of transportation such as walking and biking. Increased physical activity can improve physical health and reduce stress.

The following recommendations are designed for suburban communities, but the outlined principles are applicable to many communities in Minnesota. Specific methods for TDM will depend on the needs of the community. Determining focus areas and analyzing strategies at both the development and operational stages will be the foundation of the TDM plan.

Transportation Demand Management Recommendations

1. Split strategy into 2 stages
2. Establish focus areas for each stage
3. Integrate policy into existing procedures
4. Enforcement through annual reporting and evaluation

EFFECTIVE TDM STRATEGIES FALL INTO TWO FUNDAMENTAL CATEGORIES

Some TDM actions take place during site design and construction, such as the creation of new facilities or design choices that accommodate a variety of transportation modes. Others take place during site use and operation, including a wide variety of approaches to influence commuter behavior on a day-to-day basis. Because these two categories of TDM strategies take place during different phases of a site's life cycle, it is not optimal or efficient to apply the same requirements, regulations, and enforcement policies to both. A key feature of these recommendations is the separation of TDM policy into two stages, each addressing one of these fundamental categories.

1 DEVELOPMENT TDM

Plans seek to create a built environment that enables the use of alternate modes and times for commute trips. These policies focus on aspects of successful TDM strategies that take place during site development, redevelopment, and expansion. These include decisions relating to site and infrastructure design, facility features, and construction of facilities and infrastructure.

2 OPERATIONAL TDM

Plans seek to encourage the use of alternative commute modes and times that are made available through Development TDM plans. They focus on education, outreach, and incentive techniques that encourage commuter behaviors that reduce peak-period SOV use.

ESTABLISH TDM FOCUS AREAS TO GUIDE THE SELECTION OF TDM STRATEGIES

The availability of specific types of transportation services is a key factor in determining the success of TDM strategies. For example, employers that offer subsidized transit passes see far greater trip reduction outcomes if the work site is well-served by transit. Similarly, bicycle storage facilities are of little use as a TDM strategy if the work site does not have comfortable existing or planned connections to bicycle lanes or trails. TDM investments are most effective when they are compatible with the local existing and planned transportation context. TDM Focus Areas will ensure that submitted TDM plans are sensitive to the existing built environment, transportation infrastructure, and public transit service. City approval of TDM plans will depend upon the developer's ability to implement its prescribed efforts to reduce SOV trips.

"TDM investments are most effective when they are compatible with the local existing and planned transportation context."

INTEGRATE TDM POLICY AND REQUIREMENTS INTO THE EXISTING DEVELOPMENT REVIEW PROCESS

It is important that TDM policy not be overly burdensome on either the city or on developers and employers. It is recommended to apply TDM policy that leverages existing city processes wherever possible. Existing development review procedures provide opportunities for plans to be reviewed by city staff as well as for discussions and negotiations between developers and the city, and the recommended TDM policies can take advantage of these same procedures. Additionally, integration with established city procedures allows the introduction of more robust TDM policy without generating confusion for developers or discouraging development activity.

IMPLEMENT ANNUAL REPORTING AND EVALUATION

One of the largest stumbling blocks to an effective TDM policy or ordinance is a lack of effective enforcement of TDM plans. Development stage TDM plans require approval by the city in order for the developer to receive a building permit. Every year, property managers must submit an updated Operational TDM plan to the city that lists current tenants. Failure to submit an updated annual report will render the property owner in violation of its development agreement with the city and subject to penalties under the city's civil court process.

Five Important Takeaways

SIMPLICITY OVER COMPLEXITY

A clear TDM policy is essential. Developers and employers should be able to easily determine the TDM requirements that apply to them. Many municipalities reduce complexity by integrating the TDM requirements into the existing development review process. This reduces the layers of regulation developers are subject to and minimizes the number of touch-points a developer needs to navigate.

Simplicity is also important from an administrative perspective. A complex TDM plan would tend to be more difficult to administer than a simple TDM plan, requiring more resources on the part of the municipality or Transit Management Organization (TMO).

CONTINUED INVOLVEMENT

Many TDM plans include ongoing, programmatic strategies like transit pass subsidies or carpool programs. These types of strategy require long-term involvement from the employer. Enforcement of long-term strategies is a problem faced by every city with a TDM plan and they have dealt with it in a variety of ways. Bloomington and Eden Prairie, for example, use their requirement for developers to provide a financial guarantee as an enforcement mechanism for long-term TDM strategies. Financial guarantees, however, have some administrative complications and are typically set to expire after two-years, at which point cities lose their enforcement leverage.

As a means of staying involved and promoting ongoing TDM strategies among employers, most cities incorporate some form of annual reporting requirement. Many cities also engage outside support to stay involved with employers over time. Municipalities and employers have limited resources available to dedicate to a TDM plan. TMOs can provide staff time and expertise to support TDM planning and monitoring.

"As a means of staying involved... most cities incorporate some form of annual reporting requirement."

CONTEXT-SENSITIVE SOLUTIONS

Many TDM strategies are dependent on the spatial context of a given development. This is particularly true of transit and bicycle/pedestrian commuting. Most North American transit planning assumes a ¼ mile walking distance to local and express bus transit. The state of the pedestrian environment on the route from the transit stop to the destination plays a large part in determining the real-world distance commuters are willing to walk. A comfortable pedestrian environment with sidewalks, shade trees and easy crossings at intersections will increase the distance people are willing to walk, while the reverse is true for an uncomfortable pedestrian environment.

This same pattern holds true for bicycle commuting. All else equal, cyclists prefer bicycle infrastructure that is separated from autos and has a greater level of real and perceived safety. Areas with more developed bicycle infrastructure tend to see higher bicycle mode shares.

TDM decisions should be made with the spatial context of a development in mind.

SCALE TO DEVELOPMENT SIZE

Many cities distinguish between different sizes of development in their TDM plans. This is usually done through tiers or thresholds based on parking requirements, use, or square footage. Different sized developments are subject to different TDM requirements based on intensity; larger developments generating more trips are generally required to implement stricter TDM strategies. For example, Bloomington, MN has two distinct tiers of developments based on parking requirements with different TDM plans for each. Only the Tier 1 developments are subject to the strictest TDM requirements.

> **"Different sized developments are subject to different TDM requirements based on intensity."**

The thresholds exist to reflect the varying impacts different sized developments have on peak-hour congestion. Larger developments with more employees will tend to have a greater impact on congestion than will developments with fewer employees and are thus subject to stricter TDM requirements. In most cases, this also reflects the ability of larger developments to implement more resource-intensive TDM strategies.

DISTINCT TDM CATEGORIES

There are two major categories of TDM strategy currently in-use at the employer level: those based on physical infrastructure improvements and ongoing, programmatic strategies.

Strategies based on physical infrastructure improvements include:

- indoor bicycle storage facilities
- showers
- orienting the site to be closer to the street
- adding sidewalks and bicycle trail connections

Ongoing, programmatic strategies include:

- transit pass subsidies
- commuter fairs
- carpool programs

The two categories of TDM strategy are distinguished by different actors, incentives, and enforcement mechanisms and they are implemented at different phases of the development lifecycle. Infrastructure improvements take place during the site design and construction phase of a development while programmatic strategies take place throughout the duration of the use of the property and are typically implemented by the employer or property manager rather than the developer.

Recommendation Framework

DEVELOPMENT TDM PLAN REQUIREMENTS

Example TDM Plan Requirements

Any development meeting one or more of the following proposed qualifications must submit for review and implement an approved Development TDM Plan:

- New commercial, industrial, or institutional developments that require 300 or more total parking spaces, as determined by city code. Qualifying development uses include commercial, industrial, and institutional uses designated as peak-hour traffic generators.
- Redevelopment of currently-occupied commercial, industrial, or institutional use generating peak-period traffic with 250 or more existing parking spaces, resulting in a 20 percent or greater increase in parking spaces (300 or more total spaces).
- Redevelopment or rehabilitation requiring a building permit of currently unused (vacant) property for the purpose of returning it to commercial, industrial or institutional use, when the resulting use would require 300 or more total parking spaces, as determined by city code.

When setting TDM requirement thresholds in any city, it is necessary to balance the impacts on developers and property owners, the benefits achievable through TDM strategies, and the city staff resources available for implementation and enforcement. The city should undertake an evaluation of these effects in order to choose suitable thresholds.

The city should consult with the city attorney on the legality of proposed TDM enforcement mechanisms to ensure that means of enforcement included in the plan are legal according to city law.

Review and Approval

All Development TDM Plans will be reviewed by an appropriate city authority. This review process will focus on confirming that the proposed TDM strategies are compatible with the local context.

Real-Time Enforcement

Property owners who fail to submit a Development TDM Plan, or whose Development TDM Plan is not approved, will be denied a building permit and unable to commence construction until a Development TDM Plan is approved.

OPERATIONAL TDM PLAN REQUIREMENTS

Any development which requires a Development TDM Plan also requires an Operational TDM Plan, which must be submitted along with the Development TDM Plan. Additionally, the property manager must submit on a yearly basis a report describing the implementation and results of the Operational TDM Plan, and must update the Operational TDM Plan when necessary as described below.

INITIAL SUBMISSION

Review and Approval

All Operational TDM Plans will be reviewed by an appropriate city authority, or by a third party selected by the city. This review will determine:

- Whether the Operational TDM Plan is compatible with the local context, as outlined below in TDM Focus Areas.
- Whether the Operational TDM Plan represents a good-faith effort towards reducing peak-period vehicle trips.

Enforcement

Property owners who fail to submit an Operational TDM Plan, or whose Operational TDM Plan is not approved, will be denied a certificate of occupancy until an Operational TDM Plan is approved by the city.

ANNUAL OPERATIONAL TDM PLAN REPORT

Each year, property managers will be required to submit a report to the city describing what actions have been taken over the prior year to implement the Operational TDM Plan, and the results that can be attributed to those actions.

Review and Approval

All Operational TDM Plan annual reports will be reviewed by an appropriate city authority, or by a third party selected by the city. The annual report must demonstrate a good-faith effort by the property management and tenants for implementation and trip reduction, and must ultimately be approved by the city. Additionally, this annual report will require measurement of education and marketing efforts and effectiveness of the TDM plan(s).

Enforcement

If the review of an annual report determines that a property owner has not made a good-faith effort to implement an approved Operational TDM Plan, the property owner may be found in breach of the original development agreement, site approval, or zoning change.

ANNUAL OPERATIONAL TDM PLAN UPDATES

Each year, property managers will be required to submit either:

- An updated Operational TDM Plan which reflects changes to the number and/or type of workers employed at the property; or
- A statement that no such update is required.

An updated Operational TDM Plan is required when:

- The total number of employees working at the property has changed by 10 percent or more relative to the total number of employees working at the property when an Operational TDM Plan was last approved; or
- 20 percent or more of the finished property area has undergone a change in primary use or user since the time when an Operational TDM Plan was last approved.

ADDRESS CHANGES TO LOCAL INFRASTRUCTURE

Operational TDM Plan updates must address any changes to local transportation infrastructure or service (e.g., expansion or enhancement of local transit service) which have taken place since the previous Operational TDM Plan was approved. Additionally, property managers are encouraged to submit an updated TDM plan when changes in local transportation infrastructure or service create new opportunities for applying TDM strategies.

Review and Approval

All Operational TDM Plan updates will be reviewed by an appropriate city authority, or by a third party selected by the city.

Enforcement

If a property owner fails to submit a required Operational TDM Plan Update, or fails to accurately document that no update is necessary, the property owner may be found in breach of the original development agreement, site approval, or zoning change.

TDM Focus Areas: Compatibility with the Local Context

The city will designate Focus Areas, used as a guide for developers and property managers/employers to develop required plans, as well as by city staff to determine compatibility of proposed Development and Operational TDM Plans. Focus areas are those with higher levels of congestion and heavy traffic flows. These areas can be identified using traffic pattern data. Districts may overlap; sites that have access to transit service and appropriate bicycle/pedestrian facilities would require adherence to the requirements of both districts.

FUNDAMENTAL TDM AREAS

Fundamental TDM Areas are applicable to all parts of the city, including those not contained within in a Transit TDM Focus Area, a Non-Motorized TDM Focus Area, or areas around business districts and employment centers.

Compatible Development TDM Strategies:

- Designation of carpool/vanpool parking spaces through striping and distinctive signage.
- Provide outdoor and indoor seating areas for tenant breaks and meals.
- Locate food service and access to other services (e.g., access to dry-cleaning service, fitness center, banking, etc.) on site.

EXAMPLES:

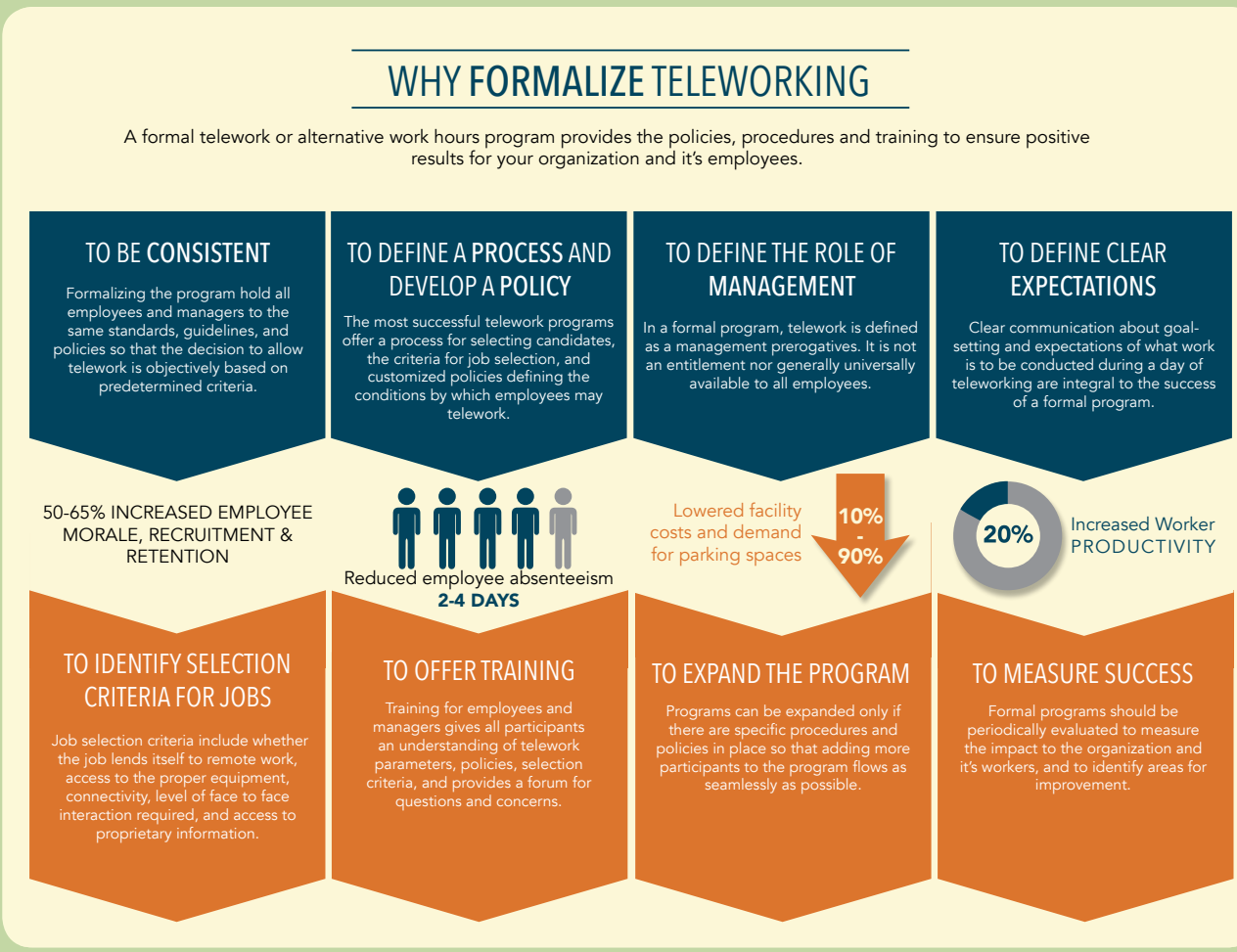
- Preferential carpool/vanpool parking

Compatible Operational TDM Strategies:

- Quarterly facilitation of carpool/vanpool matching; follow-up with existing arranged carpool/vanpool groups.
- Financial incentives or rewards to employees who commute using carpool, vanpool, or other shared-vehicle modes.
- Pricing of employee automobile parking.
- Employee parking cash-out options.
- Flexible work schedule programs that allow and encourage some employees to avoid commuting during peak periods at least one day per week.
- Teleworking options that encourage employees to work from home at least one day per week, eliminating the need for a commute for some employees.

EXAMPLES:

- Central location for information about commute options
- Permanent commuting page on company intranet with resources and links
- Monthly financial incentives for employees who do not drive alone
- Monthly carpool gas cards for each carpool group



Caption

Teleworking

- **Best kind of TDM strategy – employees do not need to commute at all**
- **Good for companies to have formalized telework plan**
- **Components of teleworking:**
  - **Temporary, voluntary arrangement**
  - **Decision of the management**

RESOURCES:

- **Sample teleworking policy from 494 commuter services (see appendix)**
- **http://telework.gov – resources for training, setting policies, information for managers and employees**

TRANSIT TDM FOCUS AREAS

Transit TDM Focus Areas are defined as areas within a five-minute walk of an existing or programmed transit stop or station. The five-minute walking distance is measured along sidewalks and other pedestrian infrastructure and using an assumed walking speed of three miles per hour.

Compatible Development TDM Strategies:

- Placement of a primary building entrance near an existing or programmed transit stop or station.
- Creation of a sidewalk or other pedestrian facility that directly connects the main building entrance to an existing or programmed transit stop or station.
- Creation of shelter, seating, and/or heated facilities to serve as a waiting area for an adjacent existing or programmed transit stop or station where no shelter, seating, or waiting area exists.
- All Development TDM strategies identified as compatible for Fundamental TDM Areas.

Compatible Operational TDM Strategies:

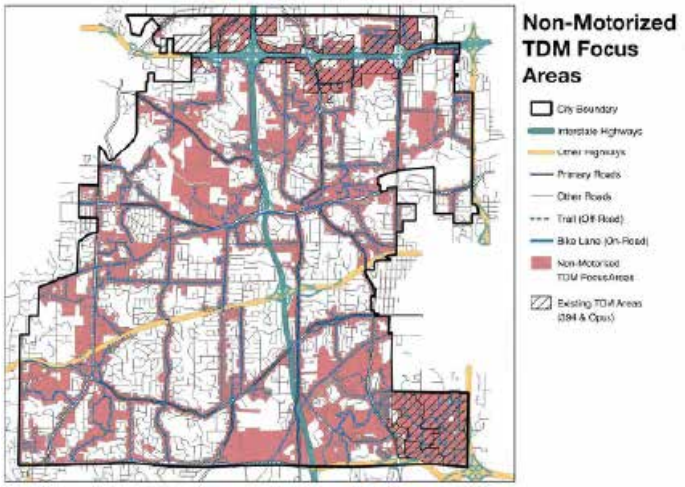
- Subsidy of employee transit fares (direct purchase or MetroPass enrollment).
- Provision or coordination of flexible transportation services available on-site for employee use during the day. This may include car-sharing programs and shuttle/circulator services.
- All Operational TDM strategies identified as compatible for Fundamental TDM Areas.

EXAMPLES:

- Discounted bus passes available on site
- MetroPass to employees who commute by transit at least three days per week
- Display transit schedules in a central location

Matching TDM Strategies to Transit Service

It is important that TDM strategies be compatible not just with the existence of transit service, but also with the level of service provided. For example, a location near a bus stop that is served by only a few trips per day would benefit only marginally, if at all, from transit-focused TDM strategies. When reviewing TDM plans that include transit-focused strategies, the city should carefully consider the existing and planned levels of transit service at nearby stops and stations.



NON-MOTORIZED TDM FOCUS AREAS:

Non-Motorized TDM Focus Areas are defined as parcels intersecting a 50-meter buffer around dedicated non-motorized transportation facilities such as trails and bike lanes. Entire parcels are selected, even if only a small area of a parcel is within the 50-meter buffer. The city should update this definition as transit service and infrastructure change over time.

Compatible Development TDM Strategies:

- Placement of a primary building entrance near an existing or programmed non-motorized trail or bicycle facility.
- Creation of a paved sidewalk or trail that directly connects the main building entrance to an existing or programmed non-motorized trail or bicycle facility.
- Creation of secured and sheltered bicycle storage facilities for employee and/or customer use located in close proximity to main building entrance or non-motorized facility.

- Creation of storage lockers and showers available for daily employee use.
- All Development TDM strategies identified as compatible for Fundamental TDM Areas.

EXAMPLES:
- Bike racks in multiple locations throughout the campus
- Designated lockers for bicycle commuters

Compatible Operational TDM Strategies:
- Financial incentives or rewards to employees who commute using a non-motorized mode.
- Provision and use of services or equipment to maintain local non-motorized trails or bicycle facilities.
- Provision or coordination of flexible transportation services available on-site for employee use during the day. This may include car-sharing programs and shuttle/circulator services.
- All Operational TDM strategies identified as compatible for Fundamental TDM Areas.

EXAMPLES:
- Regularly buys lunch for bicycle commuters
- Pays $25 per employee per month for biking at least three days per week

Recommendations for Areas Around Business Districts and Employment Centers

Compatible Development TDM Strategies:
- All Development TDM strategies identified as compatible for Fundamental TDM Areas, Transit TDM Focus Areas, or Non-Motorized TDM Focus Areas.

Compatible Operational TDM Strategies:
- All Management TDM strategies identified as compatible for Fundamental TDM Areas, Transit TDM Focus Areas, or Non-Motorized TDM Focus Areas.

Recommendations for City-Facilitated TDM Actions

Cities are encouraged to explore the implementation of three additional TDM strategies at the city level:

- **City-wide Social Marketing Campaign:** The city should pursue marketing efforts at the community-group or neighborhood-based level (where applicable) in order to encourage residents to re-think their travel habits and personal health.
- **City Participant Incentive Program:** Implementation of an incentive program for "try-it" residents (and commuters) will help to influence travel habits and perceptions, in coordination with the aforementioned social marketing campaign.
- **TDM Policy for city employees:** The implementation of TDM program for city employees will be an effective tool to display the city's commitment to TDM measures. Ideas such as the "try-it" goal will help the policy feel realistic to city employees.

Additional Resources for Operational TDM Strategies

Metro Transit
TMO for the region. Metro Transit outreach staff will work with the businesses to create TDM strategies. Carpool and vanpool matching is provided for individual users.
http://www.metrotransit.org/outreach

494 Corridor Commuter Services
Services offered for commuters in Minnetonka, Eden Prairie, Bloomington, and Richfield. The organization offers resources for carpooling, taking transit, and biking to work.
http://www.494corridor.org

St. Paul Smart Trips
Commuter services for those working in St. Paul. The organizations offers information on ridesharing, transit, biking, and walking.
http://www.smart-trips.org

Move Minneapolis
Downtown Minneapolis TMO. Offers recommendations for carpooling, biking, walking, and taking transit. Move Minneapolis also provides educational programs for employers around different commute options.
http://moveminneapolis.org

Commute Solutions
Anoka County TMO offering commute options resources for businesses, employees, residents, and students. Works with businesses to create TDM plans and other workplace resources.
https://www.anokacounty.us/336/Commute-Solutions

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APPENDIX

Appendix A: Example Tier 2 Transportation Demand Management Plan

Pursuant to the Bloomington City Code (Section 21.301.09), all new development must commit to implementing TDM strategies. Below is a checklist of potential TDM strategies from which to select. 494 Commuter Services is a free service that offers information about commuting. They provide resources and services to implement TDM strategies at no charge. Visit the website at www.494corridor.org.

Basic TDM Strategies

- ❑ Provide preferential parking spaces for car and vanpools
- ❑ Promote the Guaranteed Ride Home program
- ❑ Provide bike racks and/or lockers
- ❑ Annual bike to work clinic including onsite bicycle tune up event
- ❑ Provide a transit stop easement for transit stops adjacent to the property
- ❑ Allow employees to purchase discounted transit passes pre-tax
- ❑ Provide commuter brochures to employees/tenants
- ❑ Quarterly commuter fairs (transit information, rideshare matching, bicycle commuting information, Guaranteed Ride Home information)
- ❑ Regular commuting articles in newsletter
- ❑ Educational brown-bag lunches promoting commuter alternatives
- ❑ Other (Describe strategy on a different sheet)

Advanced TDM Strategies

- ❑ Provide shower facilities
- ❑ Pay not to Park program
- ❑ Work with Metro Transit to provide a concrete pad, bench, and/or shelter at the nearby transit stop
- ❑ Provide MetroPass free, at a discount, and/or pre-tax
- ❑ Subsidy for carpooling and/or vanpooling
- ❑ Participation in the regional Van Go! Program sponsored by Metropolitan Council
- ❑ Promotion of Rideshare to Work Week (campaign with prizes)
- ❑ Promotion of Commuter Challenge (campaign with prizes)
- ❑ BBQ or luncheon for people who use alternative modes
- ❑ Allow employees to work from home 1 to 5 days each week
- ❑ Allow employees to set a schedule that allows them to commute at non-peak times
- ❑ Other (Describe strategy on a different sheet)

Property Owner commits to implementing the TDM strategies checked above.

Owner_____ Date_____

Appendix B: Suburban Employers with Commute Incentive Programs

ATK – Advanced Weapons Division (Plymouth)

- Provides $30 per month to any employee who uses a non-drive alone commute mode/s regularly
- Has permanent commuting page on company intranet with resources and links
- Display of commute materials in common area

Best Buy HQ (Richfield)

- Fully subsidizes MetroPass for all employees willing to commute by bus at least three days per week
- Employees who vanpool pay $25 per person/month total out-of-pocket, including gas. Best Buy pays all remaining vanpool costs, after the Metropolitan Council subsidy of 50% of the total monthly lease amount (11 vanpools)
- Preferential carpool/vanpool parking (200 carpools)
- Central location for information about commute options – large commuting kiosk
- Onsite fitness center offering free shower and locker facilities for bicycle commuters
- Bike racks in multiple locations throughout the campus

Cargill (Wayzata and Hopkins)

- Provides $300 per vanpool (2 vanpools)
- Preferential carpool and vanpool parking
- Showers and bike racks

Express Scripts (Bloomington)

- Provides $25 per employee per month for transit passes
- Preferential parking for carpoolers
- Showers and bike racks

Medica (Minnetonka)

- Gives 3-person Medica-employee carpools gas gift cards worth $25 monthly; 2-person Medica-employee carpools in monthly drawing for several $25 gas cards
- Offers MetroPass to employees who commute by bus at least three days per week
- Preferential parking for carpoolers
- Designated lockers for bicycle commuters
- Free use of showers for bicycle commuters

Optum Campus (Eden Prairie)

- Offers MetroPass to employees who commute by bus at least three days per week (subsidizes $25 per employee/month)
- Preferential parking for carpoolers
- Provides an assigned locker for personal, full-time use to individuals who bike or walk to work three or more days each week
- Provides covered bike racks and shower facilities

Quality Bicycle Products (Bloomington)

- Provides $4 per employee per day for bicycle commuting, using transit or carpooling
- Regularly buys lunch for bicycle commuters
- Indoor bike racks
- Preferential parking for carpoolers
- 6 round-trip bike commutes in a month earns an employee a $10 contribution to their HSA account; 12 round-trip bike commutes earns a $15 contribution

SFM (Bloomington)

- Provides $25 gas cards each month to employees who carpool
- Pays employees who take transit $25 a month

Starkey Laboratories (Eden Prairie)

- Sells discounted bus passes on site at 50% off retail price
- Provides $75 per employee per month toward vanpooling (3 vanpools)
- Pays $25 per employee per month for carpooling or biking at least three days per week (50+ employees carpool regularly)
- Preferential carpool and vanpool parking
- Showers and bike racks

500+ Twin Cities companies sell discounted bus passes to their employees onsite

Commuter Services
5701 Normandale Road, Suite 322
Edina, MN 55424
Phone: (612) 750-4494
Website: 494corridor.org

Appendix C: Sample Teleworking Program Policy

The Telework Policy provides guidelines on the teleworking program. It defines the parameters of the teleworking arrangement. The policies must fit the existing corporate culture.

Telework is the concept of working from home or another location on a full- or part-time basis. Teleworking is not a formal, universal employee benefit. Rather, it is an alternative method of meeting the needs of the company. The company has the right to refuse to make teleworking available to an employee and to terminate a teleworking arrangement at any time. Employees are not required to telework. Employees have the right to refuse to telework if the option is made available.

The company's policies for teleworking are as follows:

Compensation and Work Hours
The employee's compensation, benefits, work status, and work responsibilities will not change due to participation in the teleworking program.

The amount of time the employee is expected to work per day or pay period will not change as a result of participation in the teleworking program.

Eligibility
Successful teleworkers have the support of their supervisors. Employees will be selected based on the suitability of their jobs, an evaluation of the likelihood of their being successful teleworkers, and an evaluation of their supervisor's ability to manage remote workers. Each department will make its own selections.

Upon acceptance to the program both the employee and manager will be expected to complete a training course designed to prepare them for the teleworking experience. All teleworkers must sign an agreement.

Equipment/Tools
The company may provide specific tools/equipment for the employee to perform his/her current duties. This may include computer hardware, computer software, phone lines, email, voice-mail, connectivity to host applications, and other applicable equipment as deemed necessary.

The use of equipment, software, data supplies and furniture when provided by the company for use at the remote work location is limited to authorized persons and for purposes relating to company business. The company will provide for repairs to company equipment. When the employee uses her/his own equipment, the employee is responsible for maintenance and repair of equipment.

A loaner laptop may be provided when available. Loaner computers will vary in performance and configuration. Loaners must be returned upon request.

Workspace
The employee shall designate a workspace within the remote work location for placement and installation of equipment to be used while teleworking. The employee shall maintain this workspace in a safe condition, free from hazards and other dangers to the employee and equipment. The company must approve the site chosen as the employee's remote workspace. Employee is expected submit three photos of the home workspace to management prior to implementation.

Any company materials taken home should be kept in the designated work area at home and not be made accessible to others.

The company has the right to make on-site visits (with 48 hours advance notice) to the remote work location for purposes of determining that the site is safe and free from hazards, and to maintain, repair, inspect, or retrieve company-owned equipment, software, data, or supplies.

Office Supplies
Office supplies will be provided by the company as needed. Out-of-pocket expenses for other supplies will not be reimbursed unless by prior approval of the employee's manager.

Worker's Compensation
During work hours and while performing work functions in the designated work area of the home, teleworkers are covered by worker's compensation.

Liability
The employee's home workspace will be considered an extension of the company's workspace. Therefore, the company will continue to be liable for job-related accidents that occur in the employee's home workspace during the employee's working hours.

The company will be liable for injuries or illnesses that occur during the employee's agreed-upon work hours. The employee's at-home work hours will conform to a schedule agreed upon by the employee and his or her supervisor. If such a schedule has not been agreed upon, the employee's work hours will be assumed to be the same as before the employee began teleworking.

The company assumes no liability for injuries occurring in the employee's home workspace outside the agreed-upon work hours.

The company is not liable for loss, destruction, or injury that may occur in or to the employee's home. This includes family members, visitors, or others that may become injured within or around the employee's home.

Dependent Care
Teleworking is not a substitute for dependent care. Teleworkers will not be available during company core hours to provide dependent care.

Income Tax
It will be the employee's responsibility to determine any income tax implications of maintaining a home office area. The company will not provide tax guidance nor will the company assume any additional tax liabilities. Employees are encouraged to consult with a qualified tax professional to discuss income tax implications.

Communication
Employees must be available by phone and email during core hours. All client interactions will be conducted on a client or company site. Participants will still be available for staff meetings, and other meetings deemed necessary by management.

The company will pay work-related voice and data communication charges

Evaluation
The employee shall agree to participate in all studies, inquiries, reports and analyses relating to this program.

The employee remains obligated to comply with all company rules, practices, and instructions.

Source: www.twincitiestelework.com

Appendix D: Sample Teleworking Agreement

EMPLOYER NAME

Teleworker Agreement with (employee name)

Employee agrees to perform services for Employer as a "teleworker." This agreement spells out the basic terms and conditions under which (employee name) (hereafter "Teleworker") will be teleworking for (Employer name) (hereafter "Employer").

This agreement is effective _____, 2015, and remains in effect until the agreement is terminated.

Teleworking is available only to eligible employees and is offered at Employer's sole discretion. Teleworking is not available to the entire organization. As such, no employee is entitled or guaranteed the opportunity to telework.

Termination of Agreement – Either party may terminate Teleworker's participation in the program, with or without cause, upon reasonable notice in writing to the other party. Employer will not be held responsible for costs, damages or losses resulting from terminating this teleworking program. This Agreement is not a contract of employment and shall not be construed as such.

Salary, Job Responsibilities, Benefits – Teleworker agrees to comply with all existing job requirements as are in effect in the office. Salary and benefits will not change because of involvement in this telework program. Specific job responsibilities may only be modified with the agreement of Teleworker's supervisor.

Work hours, Overtime, Vacation – Work hours are not expected to change during telework. In the event that overtime is anticipated, it must be discussed and approved in advance with the Teleworker's manager, just as any overtime scheduling would normally be approved.

Work Schedule – The daily work schedule for the days when working remotely or at home is subject to approval by Teleworker's manager. The manager may require that Teleworker work certain "core hours" and be accessible by telephone or otherwise during those hours.

Equipment – Teleworker must have all necessary equipment in a suitable home or remote office location to do their jobs. Employer may elect to provide computer, software, and other equipment needed for teleworking. If the Employer provides such property or equipment, these items remain the property of the Employer and must be returned to the company upon request. Any computer, software, or other equipment or supplies provided by Employer are provided for the sole use of the Teleworker to perform their jobs.

Employer-owned software may not be duplicated except as formally authorized. Employer will be responsible for insurance and maintenance of all company-provided equipment.

Teleworker may use personal equipment for teleworking purposes only as approved by the Employer. In such cases, the Teleworker will be responsible for the maintenance and insurance required for such equipment.

Workspace – Teleworker agrees to designate a workspace within their remote work location that is quiet and free from interruption, and for placement and installation of equipment to be used while teleworking. Teleworker agrees to maintain this workspace in a safe condition, free from hazards and other dangers to Teleworker and

equipment. Employer may approve the site chosen as Teleworker's remote workspace. If requested, Teleworker shall submit photos of the home workspace to their manager prior to commencing teleworking.

Teleworker agrees that Employer can make on-site visits (with advance notice) to the remote work location for the purpose of determining that the site is suitable for telework, safe and free from hazards, and to maintain, repair, inspect, or retrieve employer-owned equipment, software, data or supplies. In the event the Teleworker fails to return employer-owned property or equipment upon demand, and legal action is required to regain possession of this property or equipment, Teleworker agrees to pay all costs incurred by Employer, including attorney's fees, should Employer prevail.

Any Employer-owned or provided materials taken home or to the remote work location should be kept in the designated work area and not made accessible to others.

Office Supplies – Office supplies will be provided by Employer as needed. Teleworker's out-of-pocket expenses for other supplies will not be reimbursed except with prior approval of Teleworker's manager.

Liability for Injuries – Teleworker understands that they remain liable for injuries to third persons and/or members of their family on Teleworker's premises. Teleworker agrees to defend, indemnify and hold harmless Employer, its affiliates, employees, contractors and agents, from and against any and all claims, demands or liability (including any related losses, costs, expenses, and attorney fees) resulting from, or arising in connection with, any injury to persons (including death) or damage to property caused, directly or indirectly, by the services provided herein by Teleworker or by Teleworker's willful misconduct, negligent acts or omissions in the performance of the Employee's duties and obligations under this Agreement, except where such claims, demands, or liability arise solely from the gross negligence or willful misconduct of the Employer.

Dependent Care – Teleworking is not a substitute for dependent care. Teleworker will not be available during company core hours to provide dependent care or supervision.

Income Tax – It will be the Teleworker's responsibility to determine any income tax implications of maintaining a home office area. Employer will not provide tax guidance nor will Employer assume any additional tax liabilities. Teleworkers are encouraged to consult with a qualified tax professional to discuss any income tax implications.

Evaluation – Teleworker agrees to participate in any employer surveys, inquiries, reports, and analyses relating to the telework program.

Teleworker understands that violation of any of the above may result in terminating this arrangement.

I have read and understand this agreement and accept its conditions.

Employee name ("Teleworker")_____ Date_____

I have reviewed the terms of this agreement with (Employee name).

Supervisor name_____ Date_____

Appendix E: Example Annual Status Report

CITY OF BLOOMINGTON MINNESOTA

TDM Annual Status Report

The City of Bloomington's Transportation Demand Management (TDM) ordinance requires certain large developments and redevelopments to implement programs that encourage employees to reduce single occupancy vehicle trips to help relieve traffic congestion, allow parking flexibility and reduce air pollution.

Developers/property owners affected by the TDM ordinance must submit an Annual Status Report form each year for a minimum of 2 years from the Initial TDM Plan Implementation Date. The information is used by the City of Bloomington to determine if the developer/property owner has put forth a good faith effort to implement the TDM strategies in their approved TDM plan.

Please complete the following report as carefully and completely as you can. Specific instructions are included in sections requiring detailed answers. If you would like to provide more information about your TDM program, attach additional pages.

Worksite Description

Date Submitted: _____ Case File Number: _____

Property ID No.: _____

1 worksite name

2 site address | 3 city, state | 4 zip

5 TDM contact name | 6 title | 7 phone

8 TDM contact mailing address | 9 email address | 10 fax

Employee Information

11 total number of building employees: _____ 12 total occupied square feet of building (s): _____

13 Is your TDM program offered to all employees/tenants? ☐ yes ☐ no

14 Does this worksite have multiple shifts? ☐ yes ☐ no

If yes, describe: _____

TDM Coordinator Information

15 Is there a TDM Coordinator for the property? ☐ yes ☐ no

If so, please provide their contact information: ☐ same as above

15a. name | 15b. title | 15c. phone

15d. mailing Address | 15e. email address | 15f. fax

16 Is the TDM Coordinator's name, location and telephone number prominently displayed at this worksite? ☐ yes ☐ no ☐ N/A

If so, where?_____

17 Has the TDM Coordinator researched other TDM programs? ☐ yes ☐ no ☐ N/A

18 What month and year did this person begin serving as the TDM Coordinator? ☐ N/A

Month: _____ Year: _____

19 On average, how many hours per week does the TDM Coordinator spend on TDM activities? ☐ N/A

_____ Hours

20 Does the TDM Coordinator have an active worksite committee to assist with the TDM Program? ☐ yes ☐ no ☐ N/A

Program Information and Promotion

Does your worksite…	Yes	No
21 Distribute a summary of your worksite's TDM program to employees?	☐	☐
22 Provide information about the worksite TDM program during new employee orientations or in hiring packets?	☐	☐
23 Provide information via a commuter information center?	☐	☐
24 Post TDM promotional materials for employees	☐	☐
25 Give TDM presentations to managers?	☐	☐
26 Give TDM presentations to current employees, on a regular basis?	☐	☐
27 Conduct transportation events/fairs and/or participate in city/county/state TDM promotions/campaigns?	☐	☐
28 Send electronic mail messages about the TDM program?	☐	☐
29 Publish TDM articles in employee or building newsletters?	☐	☐
30 Distribute TDM information with employee paychecks?	☐	☐
31 Conduct an employee ride match campaign?	☐	☐

32 Publish and update an employee TDM website? ☐ ☐

33 What changes to program information and/or promotion, if any, are anticipated in the next 12 months? (Attach additional sheets, if necessary)

Worksite Characteristics

34 What is the primary business at this worksite? Check all that apply if multi-tenant development.

☐ finance, insurance, real estate	☐ retail/trade	☐ construction
☐ professional/office services	☐ manufacturing	☐ transportation
☐ info. services/software/technical	☐ health care	☐ government
☐ entertainment	☐ public utilities	☐ education
☐ restaurant	☐ military	☐ other

Are any of the following facilities located on site or within 3 blocks of this worksite and accessible to employees?

	No	Onsite	Within 3 blocks
35 Metro Transit Bus Stop(s)	☐	☐	☐
36 BE Line Bus Stop(s)	☐	☐	☐
37 LRT Station(s)	☐	☐	☐
38 Shuttle System	☐	☐	☐
39 Bike trail or lane	☐	☐	☐
40 Bike Rack(s)	☐	☐	☐
41 Sidewalks or pedestrian trails	☐	☐	☐
42 Shopping	☐	☐	☐
43 Restaurants/Cafeteria	☐	☐	☐
44 Child care	☐	☐	☐
45 ATM machine/bank	☐	☐	☐

Worksite Parking Information and Parking Management

Parking costs include items such as leasing costs, security, maintenance and signage.

	Onsite	Off site
46 How many total parking spaces does this worksite have for employee use that are controlled by the employer?	#	#
47 How many of the total parking spaces identified above are leased?	#	#
48 How many of the total parking spaces identified above are reserved for HOV (carpool/vanpool) parking?	#	#
49 If you charge for parking, how much do your employees pay on average, per month for an employer owned parking space?	$	$
50 If you charge for parking, how much do your employees pay on average, per month for an employer leased parking space?	$	$
51 How much does your worksite pay per month per leased parking space (estimated)?	$	$

52 Are spaces, other than those provided by the employer, available within 3 blocks of the worksite? ☐ yes ☐ no

53 If you charge for parking, do any of the proceeds from your parking go to your TDM program? ☐ yes ☐ no ☐ N/A

How much do you charge Employees for…

54 Reserved or priority parking for carpools? $ _____

55 Reserved or priority parking spaces for vanpools? $ _____

56 How many single occupancy vehicle (SOV) spaces were converted to priority carpool or vanpool spaces in the past 12 months? # _____

57 Briefly explain how you manage and monitor your worksite parking program below or attach additional sheets if necessary.

_____

_____

58 What changes to parking information and management, if any, are anticipated in the next 12 months?

_____

_____

Worksite Name: Address:

Financial Incentives and Subsidies

Attach additional sheets describing in detail any incentive programs, including amounts spent and employee/tenant participation.	Do you offer?		How many employees using?
	Yes	No	
59 Transit Pass subsidy (Metro Transit Bus, LRT, Be Line)	☐	☐	
60 Shuttle System	☐	☐	
61 Vanpool subsidy	☐	☐	
62 Carpool subsidy/incentive	☐	☐	
63 Walking subsidy/incentive	☐	☐	
64 Bicycling subsidy/incentive	☐	☐	
65 Other transportation allowance/stipend	☐	☐	
66 Opportunity for TDM participants to receive cash or prizes, paid leave, other incentives	☐	☐	
67 Other	☐	☐	

If other, please explain: _____

	Yes	No
68 Has this property owner or any tenants received a tax credit for transit, vanpooling, bicycle commuting or parking subsidies?	☐	☐
69 Do your employees/tenants take advantage of IRS tax code section 132(f), which allows for pre-tax expenditures on transit passes, vanpooling and parking?	☐	☐

70 What changes to incentives and subsidy programs, if any, are anticipated in the next 12 months:

Site Amenities

Do you offer?	Yes	No	How Many Offered?	How many used?
71 Long term bicycle parking (lockers, office, garage, etc.)	☐	☐		
72 Short term bicycle parking (racks)	☐	☐		
73 Shower and clothes lockers	☐	☐		
74 On site daycare	☐	☐		N/A
75 On site cafeteria	☐	☐		N/A
76 On site loading/unloading zones or shelters for non-SOVs	☐	☐		
77 On site kiosks that display information on TDM	☐	☐		
78 Commercial nodes within walking distance	☐	☐		

79 What changes in site amenities, if any, are anticipated in the next 12 months:

Work Schedules and Schedule Changes

Compressed Work Week

80 Does your worksite offer compressed work week schedules used to support your TDM program?

Schedule (days/hours)	Yes	No
3/36	☐	☐
4/40	☐	☐
9/80	☐	☐
other	☐	☐

If other, please explain:

Flex Time and Telework	Yes	No
81 Does your worksite offer flex time (allow employees to vary their start and end times outside of the peak period, 7-9AM & 4-6PM)?	☐	☐
82 Does your worksite allow employees to eliminate a commute trip by working at home, a telework center or satellite office?	☐	☐

Schedule Changes

	Yes	No
83 Has your worksite modified required work schedules so that some or all employees who formerly arrived at work between 7 and 9 AM are now scheduled to begin work outside the 7 to 9 AM commute window?	☐	☐

If yes, when did the shift change(s) occur? _____

If yes, how many employees' schedules were changed? _____

	Yes	No
84 Was the required shift change identified as an element of the worksite's approved TDM plan?	☐	☐
85 Did the shift change occur because of impacts directly associated with the City of Bloomington's TDM ordinance	☐	☐
86 Do you plan to modify some or all employee's work schedules within the next 12 months?	☐	☐

If yes, please explain: _____

Other Programs

Fleet Vehicles

87 Does your worksite offer employer provided vehicles for any of these purposes?	Yes	No
a) Guaranteed/emergency ride home	☐	☐
b) Vanpooling	☐	☐
c) Carpooling	☐	☐
d) Work-related business trips	☐	☐
e) Non-work related errands	☐	☐

Other Services Available at the Worksite

88 Are the following services available at your worksite?	Yes	No
a) Employer-provided shutter or custom bus or van	☐	☐
b) Guaranteed/emergency ride home program in addition to the four taxi ride reimbursements per year (up to $25 each time) offered by the Met Council	☐	☐
c) Employer-provided bicycles	☐	☐
d) Internal ridematch services	☐	☐
e) Flexcar or other shared car program	☐	☐

89 What changes to other programs, if any, are anticipated in the next 12 months?

Other TDM Activities or Program Elements

Please provide a brief summary of your TDM Plan, how it is working, how you are monitoring it and what, if anything, needs to be done to improve or modify the existing plan to meet the goals set in your original plan. Attach additional sheets, as necessary.

Report Preparation

90 Identify the individual responsible for completing this TDM Annual Status Report

☐ TDM Coordinator

☐ Other:

If other, please provide the following information:

name title

worksite

telephone fax email address

Worksite Name: Address:

Worksite Commitment

I understand that our worksite is required by the City of Bloomington to submit an Annual TDM Status Report to implement the program it describes. These actions comply with the City of Bloomington TDM Ordinance.

I am aware that the goals of the program are to promote more efficient utilization of existing transportation facilities, reduce traffic congestion and mobile source pollution and to ensure that worksites are design to maximize the potential for alternative transportation usage.

I have reviewed the referenced document and commit to the implementation of all the elements listed and submitted for your approval. I will ensure that the City of Bloomington is notified if information in the document changes.

91 Identify the highest ranking official at the worksite

signature of highest ranking official at the worksite date

name (please print)

worksite name

mailing address of person who signed this form

telephone fax email address

Please return this completed form to:

City of Bloomington
Engineering Development Coordinator
1700 West 98th Street
Bloomington, MN 55431

- Provide more opportunity for off-site parking.
- Provide further guidelines for shared parking spaces.
- Decrease parking requirements in exchange for bicycle parking.
- Require 25% of spaces be set aside for compact car use.
- Provide a maximum parking regulation based on peak hour demand, which is the current minimum.
- Provide a reduced minimum parking regulation based on average. Until this data is obtained reduce current minimum by 35.

PARKING AND LOADING REQUIREMENTS

A. Parking and loading shall be provided and maintained in accordance with the following:

1. No change of use, tenancy or occupancy of a parcel of land or building, including construction of a new building or an addition to a building, which requires additional parking or loading spaces shall be allowed until such additional parking or loading is approved and furnished. Review may be required under the site and building plan review procedures of section 300.27 of this ordinance.

2. Required parking and loading areas and the driveways providing access to them shall not be used for storage, display, sales, rental or repair or motor vehicles or other goods or for the storage of inoperable vehicles or snow.

3. Parking spaces shall be provided using the following methods:
   a. On the same development as the use served
   b. Off site from the use served provided there is reasonable access shall be provided from the off-site parking facilities to the use being served; the parking shall be within 1000 feet of a building entrance of the use being served; the parking area shall be under the same ownership as the site served, under public ownership, or the use of the parking facilities shall be protected by a recorded instrument, acceptable to the city; failure to provide on-site parking shall not encourage parking on the public streets where on-street parking is prohibited, or on other private property or in private driveways or other areas not expressly set aside for such purposes; and the off-site parking shall be maintained until such time as on-site parking is provided or an alternate off-site parking facility is approved by the city as meeting the requirements of this ordinance.

4. Shared Parking- Notwithstanding any other provision of this subdivision to the contrary, a land use may provide the required off-street parking area for additional land uses on the same development site if the following conditions are met:
   a. because of the hours of operation of the respective uses, their sizes and their modes of operation there will be available to each use during its primary hours of operation an amount of parking sufficient to meet the minimum parking requirement of each use. A reduction in the total number of required parking spaces for two or more uses jointly providing off-street parking when their respective hours of peak operation do not overlap. Shared parking shall be subject to the location requirements of section 3-c-1 and the following conditions:
      a. Computation. The number of shared spaces for two or more distinguishable land uses shall be determined with the following procedure:

1. b-1 Multiply the minimum parking required for each individual use, as set forth in Table b-1-a, Specific Off-Street Parking Provisions, by the appropriate percentage indicated in figure 26, Shared Parking Calculations, for each of the six (6) designated time periods.
2. b-2. Add the resulting sums for each of the six (6) columns.
3. b-3. The minimum parking requirement shall be the highest sum among the six (6) columns resulting from the above calculations.
4. B-4. Select the time period with the highest total parking requirement and use that total as the shared parking requirement.

General Land Use Classification	Weekdays			Weekends		
	2:00 a.m. – 7:00 a.m.	7:00 a.m. – 6:00 p.m.	6:00 p.m. – 2:00 a.m.	2:00 a.m. – 7:00 a.m.	7:00 a.m. – 6:00 p.m.	6:00 p.m. – 2:00 a.m.
Office	5%	100%	5%	0%	10%	0%
Retail sales and services	0%	90%	80%	0%	100%	60%
Restaurant (not 24 hour)	10%	70%	100%	20%	70%	100%
Residential	100%	60%	100%	100%	75%	90%
Theater	0%	40%	90%	0%	80%	100%
Hotel						
Guest rooms	100%	55%	100%	100%	55%	100%
Restaurant/lounge	40%	60%	100%	50%	45%	100%
Conference rooms	0%	100%	100%	0%	100%	100%
Religious institution	0%	25%	50%	0%	100%	50%
Reception or meeting hall	0%	70%	90%	0%	70%	100%
Museum	0%	100%	80%	0%	100%	80%
School, grades K—12	0%	100%	25%	0%	30%	10%

b. the property owner can provide evidence that even with similar hours of operation, there are an adequate number of spaces to meet the minimum parking requirement of each use. The zoning administrator may make the final decision on the proposed use.

c. the joint use of the parking facilities shall be protected by a recorded instrument, acceptable to the city. The recorded instrument may or may not include the following:

   a. d-1. Twenty four hour exceptions to the shared parking spaces (i.e. Black Friday), assuming that the lack of shared spaces for proposed 24 hour exceptions shall not encourage parking on the public streets, other private property or in private driveways or other areas not expressly set aside for such purposes.

5. Bicycle parking facilities shall be provided in an amount and design adequate to the demand generated by each use. Bicycle parking may be provided in lieu of parking spaces in the amount of:
   a. One enclosed bike space, or 5 rack spaces is the equivalent to 1 car space and;
   b. A maximum of 10% of spaces shall be replaced by the equivalent bike spaces.
6. Parking areas shall not be used to meet stormwater holding requirements as specified in the water resources management plan.
7. Parking areas and structures shall be designed and maintained to avoid vehicles queued within the public right-of-way. Gates or other access limiting devices may be installed only after a finding by the city that no adverse impacts on public right-of-way will result.

B. Parking areas shall be designed in conformance with the following:

i. Parking stalls shall have a minimum paved dimension of 8.5 feet by 18 feet. Stall and aisle dimensions shall be as noted below for the given angle:

Angle	Curb Length	Stall Length	Aisle	Low-Turnover
		Parking Structure Aisle Width***		
45°	12.0'	18.0'	13.5*	12'
60°	10.0'	18.0'	18.5*	16'
75°	9.0'	19.0'	23'	18'
90°	8.5'	19.0'	26**	24'
Parallel	20.0'	8.0'	22'	22'

* one way aisles only.
** aisles serving one row of 90° angle parking spaces may be 22 feet wide.
*** aisle widths within parking structures for low-turnover uses, such as offices, industrial facilities, residential complexes and hospitals. Retail uses and other uses with similar traffic characteristics are considered high-turnover uses.

ii. 25 percent of the total number of required spaces in all parking areas will be for compact cars and have minimum paved dimensions as follows:

angle	curb length	stall length
45°	10.0'	16.0'
60°	8.5'	17.5'
75°	8.0'	16.5'
90°	7.5'	16.0'
Parallel	16.0'	8.0'

i. compact car stalls shall be identified by appropriate directional signs consistent with sections 300.30 et seq. of the code of city ordinances;

j. compact car stalls shall be distributed throughout the parking area so as to have reasonable proximity to the structure served.

k. the design of compact car areas shall to the maximum feasible extent be such as to discourage their use by non-compact cars.

iii. All parking areas except those serving one and two family dwellings on local streets shall be designed so that cars shall not be required to back into the street. If deemed necessary for traffic safety, turn-around areas may be required.

iv. Buffers and setbacks shall be provided as follows.

a. Access drives, driveways and aisles shall not be allowed to intrude into a required parking setback except at the access point or where a joint drive serving more than one property will provide better or safer traffic circulation; and

b. Parking lots, driving aisles, loading spaces and maneuvering areas shall have setbacks as indicated in the following table:

Land use of adjacent property is as designated in the comprehensive plan. Where a mix of land uses is indicated on the comprehensive plan for adjacent property, the most restrictive applicable buffering requirement shall be observed. The requirements of this table may be waived at points where shared access is utilized.

v. All parking and loading areas, aisles and driveways shall be bordered with raised concrete curbs, or other equivalent approved by the city. Single family and two family dwelling developments shall be exempted from this requirement.

vi. All parking, loading and driveway areas shall be surfaced with asphalt, concrete or equivalent material approved by the city except single family homes which are subject to the driveway provisions of section 1105 of the code of city ordinances. Except in the R-1 and R-2 districts, all parking stalls shall be marked with painted lines not less than four inches wide in accordance with the approved site and building plan.

vii. All parking lots shall provide islands for traffic control as needed.

C. The number of required parking spaces shall comply with the following:

i. Calculating the number of spaces shall be in accordance with the following:

a. if the number of off-street parking spaces results in a fraction, each fraction of one-half or more shall constitute another space;

b. in churches and other places of public assembly in which patrons or spectators occupy benches, pews or other similar seating facilities, each 24 inches of such seating shall be counted as one seat for the purpose of this subdivision;

c. except in shopping centers or where joint parking arrangements have been approved, if a structure contains two or more uses, each use shall be calculated separately in determining the total off-street parking spaces required;

d. for mixed-use buildings, parking requirements shall be determined by the city based on the existing and potential uses of the building. In cases where future potential uses of a building will generate additional parking demand, the city may require a proof of parking plan for the difference between minimum parking requirements and the anticipated future demand; and

e. if warranted by unique characteristics, or documented parking demand for similar developments, or both, the city may allow reductions in the number of parking spaces actually constructed as long as the applicant provides a proof of future parking plan. The plan must show the location for all minimum required parking spaces in conformance with applicable setback requirements. The city may require installation of the additional parking spaces whenever the need arises.

ii. Maximum and minimum parking requirements are provided below. Current businesses may follow the guidelines to expand operations, or use extra parking spaces for alternative uses. The minimum parking requirements can be used as a ratio, based on the unit of measurement, to determine the minimum amount of parking that is required. The maximum number of off-street parking spaces of each use shall be as follows:

a. single-family dwelling and two-family dwellings: maximum two parking spaces for each dwelling unit. Minimum: 1.3 parking spaces per dwelling unit.

For single-family dwellings, a suitable location for a garage measuring at least 20 feet by 24 feet which does not require a variance shall be provided for each dwelling unit. For two-family dwellings, a suitable location for a garage measuring at least 13 feet by 24 feet, which does not require a variance, shall be provided for each dwelling unit. Such spaces must be shown on a survey or site plan to be submitted when applying for a building permit to construct a new dwelling or alter an existing space;

b. multiple family dwelling: two parking spaces for each dwelling unit, of which one space per dwelling unit shall be completely enclosed. The maximum parking spaces may include the space in front of garage doors. Minimum: 1.3 parking spaces per dwelling unit.

Additional spaces for visitor parking shall be provided based on the specific characteristics of a development and the anticipated demand for visitor spaces as determined by the city. These characteristics may include, but shall not be limited to, the project size, the number of enclosed parking spaces, the accessibility of open parking spaces, access to on-street parking, topographical characteristics, the preservation of significant trees, the impact to surrounding property, and the site and building design. Developments of 12 or fewer dwelling units, where each unit has two enclosed parking stalls, must have a maximum visitor parking of 9 parking spaces total. Visitor parking may include spaces in front of garage doors for individual units;

c. senior citizen housing developments: one parking space for each unit is the maximum. The city may require proof of parking of two spaces per unit if conversion to general housing appears possible. At

least 50 percent of the required parking spaces shall be within an enclosed weather controlled structure connected to the principal structure. The visitor parking requirements for multiple dwellings shall apply; Minimum: 0.65 parking spaces per unit.

d. boarding or lodging house: maximum one parking space for each two persons for whom sleeping accommodations are provided; Minimum: 0.65 parking spaces for each 2 person accommodating unit.

e. convalescent or nursing home: maximum one parking space for each four beds for which accommodations are offered, plus three spaces for each four employees on the major shift. Minimum: 0.65 parking spaces for each four resident beds. Minimum: 0.5 parking spaces for each four employees on the major shift.

If the city determines that the building is convertible to market rate housing, two stalls may be required for each potential dwelling unit under a proof-of-parking plan. Each facility must provide a parking plan or agreement for special event parking, if there is not adequate on-site parking for these events;

f. hospital: maximum one parking space for each two hospital beds plus one space for each employee on the major shift; Minimum: 0.65 parking spaces for each two hospital beds Minimum: 0.65 parking spaces for each employee on the major shift.

g. religious institutions and facilities, other buildings that include public assembly space, such as community centers and buildings of fraternal organizations, but excluding hotels, and related uses: maximum one parking space for each 2.5 seats based on the design capacity of the main sanctuary or assembly space. Minimum: 0.25 parking spaces for each 2.5 seats of the main sanctuary or assembly space.

h. senior high school: maximum one parking space for each classroom plus one space for each 10 students based upon design capacity; Minimum: 0.65 parking spaces for each classroom. Minimum: 0.65 spaces for each 10 students.

i. elementary, junior high school or similar school: maximum two parking spaces for each classroom; Minimum: 1.3 parking spaces for each classroom.

j. conditionally permitted schools which are not covered by paragraphs ix. and x.: maximum one parking space for every three students, plus one space for each instructor; Minimum: 0.2 parking spaces for every three students. Minimum: 0.65 parking spaces for each instructor.

k. municipal administration building, public library, museum, art gallery, post office or other municipal service building: maximum 10 parking spaces plus one space for each 500 square feet of floor area plus one space for each vehicle customarily kept on the premises; Minimum: 6.5 parking spaces plus 0.65 parking spaces for each 500 square feet.

l. golf course, golf clubhouse, country club, swimming club, tennis club, racquetball club or handball club: maximum 20 spaces plus one space for each 500 square feet of floor area in the principal structure; Minimum: 13 parking spaces plus 0.65 parking spaces for each 500 square feet of the principal structure.

m. general office building, bank and savings and loan association: maximum one parking space for each 250 square feet of floor area. Minimum: 0.65 parking spaces for each 250 square feet of floor area.

For class A office buildings exceeding 100,000 square feet of floor area, parking requirements may be reduced based on parking studies of the anticipated parking demand of the specific building. Parking studies are to be prepared by a registered traffic engineer or certified planner;

n. medical and dental office: maximum one parking space for each 175 square feet of floor area; Minimum: 0.65 parking spaces for each 175 square feet of floor area.

o. shopping center:

1. regional – maximum 5.5 spaces per 1,000 square feet of gross area; Minimum: 3.5 spaces per 1,000 square feet of gross area.
2. neighborhood or community – maximum 4.5 spaces per 1,000 square feet of gross area. Minimum: 2.9 spaces per 1,000 square feet of gross area.

If a center contains substantial interior common space, required parking spaces may be reduced based on an analysis of parking demand or proof of parking to be installed if needed at the request of city. Parking demand for restaurants and theaters located within the center will be added to the above figures based upon the requirements of this subdivision;

p. automobile service or gas station: maximum four parking spaces plus three parking spaces for each service stall, one parking space for each 250 square feet of building area used for the sale of goods or services and adequate parking for gas pump areas; Minimum: 2.5 parking spaces plus 2 parking spaces for each service stall. Minimum: 0.65 parking spaces for each 250 square feet of building area used for the sale of goods or services.

q. bowling alley: maximum five parking spaces for each bowling lane; Minimum: 3.25 parking spaces for each bowling lane.

r. hotel or motel: parking subject to the following:

1. with no other facilities than guest rooms – maximum one space per room plus one space per employee on the major shift; Minimum: 0.65 parking spaces per room plus 0.65 parking spaces per employee on the major shift.
2. with other facilities, including restaurants, conference facilities or meeting rooms – maximum one space per room plus one space per each 4.5 persons of capacity in other facilities. Minimum: 0.65 spaces per room plus 0.65 spaces per each 4.5 persons of capacity in other facilities.

s. health or fitness center: maximum one parking space for each 225 square feet of floor area; Minimum: 0.65 spaces for each 225 square feet of floor area.

t. miniature golf course: Maximum 1.5 parking spaces per golf hole; Minimum: 1 parking space per golf hole.

u. archery or golf driving range: maximum one parking space for each target or driving tee; Minimum: 0.65 parking spaces for each target or driving tee.

v. assembly or exhibition hall, auditorium, sports arena, banquet facility, conference facility: maximum one parking space for each three seats based upon design capacity; Minimum: 0.65 parking spaces for each three seats based upon design capacity.

w. theater: maximum one parking space for each three seats for a theater with 15 screens or less that does not share parking with a shopping center and one parking space for each four seats for all other theaters; Minimum: 0.65 parking spaces for each three seats for first type of theater. Minimum: 0.65 parking spaces for each four seats for all other theaters.

x. restaurant, tavern or lounge:

1. sit down full service:
   a. without on-sale intoxicating liquor or dance hall license – maximum one space per 60 square feet of gross floor area or one space per 2.5 seats, whichever is greater; Minimum: 0.65 parking spaces per 60 square feet of gross floor area or 0.65 spaces per 2.5 seats.
   b. with on-sale intoxicating liquor or dance hall license – maximum one space per 50 square feet of gross floor area or one space per two seats, whichever is greater, except that in cases in which there is a bar area separate from the food service area, a dance area larger than 100 square feet, or

other public areas, additional parking will be required as necessary. Minimum: 0.65 spaces per 50 square feet of gross floor area or 0.65 spaces per two seats.

2. fast food or self service: maximum one space per 60 square feet of gross floor area. Minimum: 0.65 parking spaces per 60 square feet of gross floor area.

y. skating rink: maximum one parking space for each 200 square feet of floor area; Minimum: 0.65 parking spaces for each 200 square feet of floor area.

z. retail store or service establishment: maximum one space for each 250 square feet of gross floor area within the building; Minimum: 0.65 parking spaces for each 250 square feet of gross floor area within the building.

aa. wholesale business, storage or warehouse establishment: maximum one space for each 1,000 square feet of gross floor area for any building used solely in a storage capacity. Minimum: 0.65 parking spaces for each 1,000 square feet of gross floor area.

For a mixed use building where storage and warehousing is an incidental use to other activity, required parking spaces shall be based upon the specific requirements for each use appearing in this subdivision. Parking requirements for a mixed use building or a building designed to contain mixed uses shall be calculated by allocating a minimum of 50 percent of gross floor area to the most intense use;

bb. manufacturing, processing or assembly plant: maximum one parking space for each employee on the major shift or one parking space for each 350 square feet of gross floor area devoted to manufacturing plus one space per 250 square feet of gross floor area devoted to office use, whichever is greater, plus one space for each motor vehicle customarily kept on the premises; Minimum: 0.65 parking spaces for each employee on the major shift or 0.65 parking spaces for each 350 square feet of gross floor area devoted to manufacturing, plus 0.65 parking spaces per 250 square feet of gross floor area devoted to office use.

cc. licensed day care facility: maximum one parking space for each six children based on the licensed capacity of the facility; Minimum: 0.65 parking spaces for each six children.

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